



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/780,072	02/17/2004	Michael L. O'Banion	0275Y-625COB	9473

27572 7590 11/30/2004

HARNESS, DICKEY & PIERCE, P.L.C.

P.O. BOX 828

BLOOMFIELD HILLS, MI 48303

EXAMINER

MITCHELL, KATHERINE W

ART UNIT

PAPER NUMBER

3677

DATE MAILED: 11/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/780,072

Applicant(s)

O'BANION ET AL.

Examiner

Katherine W Mitchell

Art Unit

3677

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 8/31/04.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 85-106 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 85-106 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 February 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☒ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☒ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION*****Oath/Declaration***

A Petition has been entered and approved changing the inventorship of the application. Examiner notes that this has caused the oath or declaration to be defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

The oath or declaration is defective because: Mr. Moores is now the sole, not joint, inventor.

***Information Disclosure Statement***

The information disclosure statement filed 4/15/2004 fails to comply with the provisions of 37 CFR 1.97, 1.98 and MPEP § 609 because documents 5,6,7, and 8 do not exist – that patent number, date, and inventor name are not valid. It has been placed in the application file, but the information referred to therein as regards to documents 5,6,7, and 8 has not been considered as to the merits. **ALL OTHER DOCUMENTS WERE CONSIDERED.** Applicant is advised that the date of any re-submission of any item of information contained in this information disclosure statement or the submission of any missing element(s) will be the date of submission for purposes of determining compliance with the requirements based on the time of filing the statement, including all certification requirements for statements under 37 CFR 1.97(e). See MPEP § 609 ¶ C(1).

Examiner notes for the record the exceptionally thorough job in preparing the IDS, and has tried to determine what documents 5,6,7, and 8 refer to, but

---

Art Unit: 3677

could not. However, since the submission was so exceptionally thorough and on point, and documents 5,6,7, and 8 are obviously only typing errors, examiner will consider corrected documents 5,6,7, and 8 if applicant lists them in his response. Examiner will consider and list on a form 892, so applicant will NOT need to submit an additional IDS and fee – the 4 corrected documents can be listed in the amendment and examiner will prepare the 892.

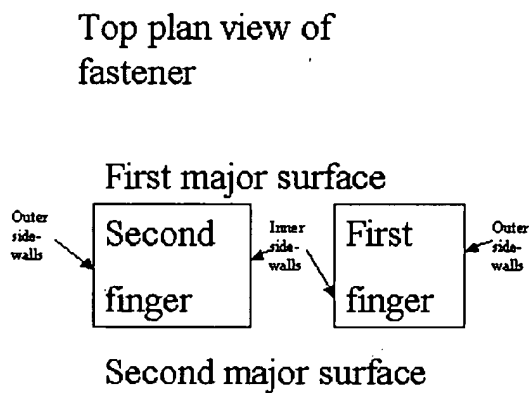
### ***Drawings***

1. The drawings are objected to under 37 CFR 1.83(a) because they fail to show 50" as described in the specification para [0065] as appearing in Fig 11, or first set of teeth 40 as described for Fig 3 in paragraph [0055]. Also, Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). Corrected drawing sheets are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR

Art Unit: 3677

1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

2. Examiner is assuming, based on an interview with attorney, that the major surfaces and sidewalls are arranged as below:



3. Fig 4 should be described as a front view, not a side view, if Fig 3 is a side view. Examiner assumed teeth not labeled are teeth 40.

#### ***Specification***

4. The disclosure is objected to because of the following informalities: the claim to priority in the first sentence should be to USP 6719512, not 6179512.

Appropriate correction is required.

#### ***Claim Objections***

5. Claim 102 is objected to because of the following informalities: It is an improper wording to describe one or more of a list of alternatives. A Markush

Group and its application are discussed in the MPEP Paragraph 2173.05(h).

Art Unit: 3677

*Alternative expressions are permitted if they present no uncertainty or ambiguity with respect to the question of scope or clarity of the claims. One acceptable form of alternative expression, which is commonly referred to as a Markush group, recites members as being "selected from the group consisting of A, B and C." See Ex parte Markush, 1925 C.D. 126 (Comm'r Pat. 1925).*

*Ex parte Markush sanctions claiming a genus expressed as a group consisting of certain specified materials. Inventions in metallurgy, refractories, ceramics, pharmacy, pharmacology and biology are most frequently claimed under the Markush formula but purely mechanical features or process steps may also be claimed by using the Markush style of claiming. See Ex parte Head, 214 USPQ 551 (Bd. App. 1981); In re Gaubert, 524 F.2d 1222, 187 USPQ 664 (CCPA 1975); and In re Harnisch, 631 F.2d 716, 206 USPQ 300 (CCPA 1980). It is improper to use the term "comprising" instead of "consisting of." Ex parte Dotter, 12 USPQ 382 (Bd. App. 1931).*

*The use of Markush claims of diminishing scope should not, in itself, be considered a sufficient basis for objection to or rejection of claims. However, if such a practice renders the claims indefinite or if it results in undue multiplicity, an appropriate rejection should be made. Similarly, the double inclusion of an element by members of a Markush group is not, in itself, sufficient basis for objection to or rejection of claims. Rather, the facts in each case must be evaluated to determine whether or not the multiple inclusion of one or more elements in a claim renders that claim indefinite. The mere fact that a compound may be embraced by more than one member of a Markush group recited in the claim does not necessarily render the scope of the claim unclear. For example, the Markush group, "selected from the group consisting of amino, halogen, nitro, chloro and alkyl" should be acceptable even though "halogen" is generic to "chloro."*

*The materials set forth in the Markush group ordinarily must belong to a recognized physical or chemical class or to an art-recognized class. However, when the Markush group occurs in a claim reciting a process or a combination (not a single compound), it is sufficient if the members of the group are disclosed in the specification to possess at least one property in common which is mainly responsible for their function in the claimed relationship, and it is clear from their very nature or from the prior art that all of them possess this property. While in the past the test for Markush-type claims was applied as liberally as possible, present practice which holds that claims reciting Markush groups are not generic claims ( MPEP § 803) may subject the groups to a more stringent test for propriety of the recited members. Where a Markush expression is applied only to a portion of a chemical compound, the propriety of the grouping is determined by a consideration of the compound as a whole, and does not depend on there being a community of properties in the members of the Markush expression.*

---

*When materials recited in a claim are so related as to constitute a proper Markush group, they may be recited in the conventional manner, or alternatively. For example, if "wherein R is a*

Art Unit: 3677

*material selected from the group consisting of A, B, C and D" is a proper limitation, then "wherein R is A, B, C or D" shall also be considered proper.*

Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 85 – 87, 91-93, and 96, 100-101, and 105 are rejected under 35 U.S.C. 102(b) as being anticipated by Lautner et al., German patent DE308681.

Re claim 85 and 96 and 105: Fig 3 shows a nail capable of fastening framing member comprising

- a pair of finger members (1,2) having opposite ends and axial length therebetween, integral at one end and forming a tip (lower end Fig 3),
  - said fingers spaced apart at second end (top end Fig 3) and forming a head (5,6);
  - a slot between said finger members extending from second end toward tip,
  - a first set of teeth (3 on 1) along first member extending outwardly in a first direction
-

Art Unit: 3677

- a second set of teeth (4 on 2) along second member extending outwardly in a second direction, said second direction substantially opposite said first direction.
- The method of use is inherent in the structure, as a toothed fastener would inherently be used so that its teeth gripped the framing member.

Re claim 86: the slot has a first section with a first width (lower, squared looking gap) and a second section with a second width (upper tapering gap), said first width wider than second width. At least a width at some point is narrower in the second width, as the end of the second section tapers where it meets at 29/30).

Re claim 87: Fig 3 shows the second section of said slot is adjacent said second end (second end is the top, having driving surface).

Re claim 91: The slot, although having a width that tapers in at 29/30, is of generally uniform width.

Re claim 92: Fingers that are substantially coplanar at one end and offset at the second end are shown in Figs 5,6, and 8, with the angled portion adjacent head being the non-coplanar part.

Re claim 93: There are first and second major surfaces, which are separated by inner (facing one another and defining slot) and outer sidewalls shown in Fig 3. The 1<sup>st</sup> and 2<sup>nd</sup> sets of teeth are on the outer sidewalls of the respective 1<sup>st</sup> and 2<sup>nd</sup> finger members as described. The method of use would inherently include having the teeth engage at least one framing member.

---



Art Unit: 3677

Re claim 100-101: projecting teeth are inherently resilient due the their unsupported projection. The fingers would be allowed to attempt to return to a nondeformed state after driving, as there is no structure to prevent the attempt.

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 88- 90 and 97-99 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lautner in view of Wollar et al. USP 4393551.

Re claims 88-90: As discussed above, Lautner teaches all the elements except it only teaches 2 sets of teeth, offset about 180 degrees from each other on opposite outer sidewalls. Wollar teaches a fastener with teeth on all sides of a fastener – not just opposite sides. Teeth on all sides would necessarily include teeth extending along portions of the finger members adjacent the inner sidewalls. Therefore, it would have been obvious to one of ordinary skill in the art, having the teachings of Lautner and Wollar et al. before him at the time the invention was made, to modify Lautner as taught by Wollar et al. to include projections on all sides, including the first and second surfaces, rather than just opposite sides of the outer sidewalls, of the fastener, as shown by Wollar et al., in order to obtain a fastener that can be used with holes that are not perfectly symmetrical about a center point, and still grip tightly and resist displacement

Art Unit: 3677

even if the substrate has an irregular hole, such as a slot with different width and height dimensions or a hole with irregular voids. One would have been motivated to make such a combination because a firmer gripping fastener would have been obtained, which would be useful if the substrate were extremely porous, or had a non-symmetrical hole that needed to have a fastener firmly affixed.

Re claims 97-99: The method of use is inherent in the structure, and the fastener would inevitably be inserted so the teeth would engage the framing members to fasten them together.

10. Claims 102-103 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lautner. As discussed above, the method of use is inherent in the fastener apparatus. However, Lautner does not disclose the specifics of how a nail is driven in. Examiner takes Official Notice that driving means for fasteners including air nailers and ram-type devices including a backing plate are well known to those of ordinary skill in the fastener arts. Further, it has been held that to be entitled to weight in method claims, the recited structure limitations such as the structure of the driving means, therein must affect the method in a manipulative sense, and not to amount to the mere claiming of a use of a particular structure. *Ex parte Pfeiffer*, 1962 C.D. 408 (1961).

11. Claims 94-95 and 104 and 106 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lautner in view of Wernhardt USP 1972119. As discussed above, Lautner teaches the claimed invention, but fails to disclose a fastener having the first set of teeth offset or staggered from the teeth of the

---

Art Unit: 3677

second set. Wernhardt teaches in Fig 5 that teeth about 180 degrees apart can be staggered or offset, and teaches in all Figures that the teeth extend outward at a non-right angle relative to the axial length. The method of use is obvious in the structure, in that a toothed fastener would inevitably be used so that at least some teeth gripped the substrate. Therefore, it would have been obvious to one of ordinary skill in the art, having the teachings of Lautner and Wernhardt before him at the time the invention was made, to modify Lautner as taught by Wernhardt to include staggered projections on opposite of the fastener, as shown by Wernhardt, in order to obtain a fastener that can be used with holes that are not perfectly symmetrical about a center point, and still grip tightly and resist displacement even if the substrate has an irregular hole, such as a hole with irregular voids. One would have been motivated to make such a combination because a firmer gripping fastener would have been obtained, which would be useful if the substrate were extremely porous, for example, rusted or chipped. Similarly, it would have been obvious to one of ordinary skill in the art, having the teachings of Lautner and Wernhardt before him at the time the invention was made, to modify Lautner as taught by Wernhardt to include projections protruding out from the axial length at non-right angles, as shown by Wernhardt, in order to obtain a fastener that can be inserted into a hole with less likelihood of the teeth breaking or catching and preventing downward movement, as a right angle tooth would do. One would have been motivated to make such a combination because a fastener that is easier to insert without damage while still preventing removal or rotation would be obtained.

---

Art Unit: 3677

**Conclusion**

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Katherine W Mitchell whose telephone number is 703-305-6713. The examiner can normally be reached on Mon - Thurs 10 AM - 8 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, J. J. Swann can be reached on 703-306-4115. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

14. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'K Mitchell', is written in a cursive style.

Kwm  
11/24/2004

---